

### **REMARKS/ARGUMENTS**

Applicant has carefully studied the Examiner's objections together with the cited prior documents. Claim 18 has been correspondingly amended to more clearly define a patentable invention over the prior art. Favorable reconsideration by the Examiner is requested.

Claim 18 has been amended by adding that the mixture of plaster, water and filler comprises about 30% to 50% of plaster by weight and 70% to 50% of filler by weight, as previously recited in claim 17. This clearly differentiates the invention from Klus (US 6,340,389) which discloses a fire door core which comprises less than 8 wt% of plaster.

Claim 18 has also been amended by adding that the higher pressure (which is applied to the mixture in the mold) is of about 150 bars at ambient temperature (see page 3, lines 3-7, of the specification). This feature further differentiates the invention from Klus, in which a pressure of 14 bars – 24.5 bars (200 to 35 psi, col. 7, lines 62-65) is applied to a product which contains less than 8 wt% of plaster (or gypsum). In fact, whereas it is known from Klus to apply a pressure of 14-24.5 bars during 0.1-2 minutes to a product which contains less than 8 wt% of plaster and preferably 0% of plaster, it would not be obvious for one skilled in the art to apply a significantly greater pressure of about 150 bars during 30-45 seconds to a different product which contains 30-50% weight of plaster and 70-50% by weight of filler, in order to obtain a result (to prevent the plaster crystallization in the mold) that is neither disclosed nor suggested by Klus.

It should further be noted that, contrary to the Examiner's opinion, Revord neither discloses nor suggests that the plaster crystallization may be prevented under pressure. Even if Revord indicates that the product sets and the water chemically combines with the gypsum to provide a crystalline mass after ejection of the product from the mold, Revord does not disclose that the plaster crystallization was prevented in the mold.

The cited passage in Revord is not surprising because the duration of the plaster crystallization is at least of several minutes at ambient temperature, which permits to mix plaster and water together, to place the mixture into a mold, to compress the mixture in the mold during several minutes and to eject the product from the mold before the end of the plaster crystallization, so that the product sets and crystallizes outside the mold. This is exactly what is done in Revord and also in Brouard.

However, it is well known and admitted by anyone in the art that the plaster crystallization begins as soon as the plaster is in contact with the water and that it is not possible to stop this crystallization, which means that in Revord, the plaster crystallization begins as soon as the plaster is mixed with water and continues when the mixture of plaster and water is compressed in the mold and continues also when the product is ejected from the mold.

Claim 18 has been further amended by adding that the quantity of water in the mixture is 35 to 45 parts by weight for 100 parts by weight of plaster. Support for this amendment is found in original claim 2. The claim now specifies the combination of quantity of water and of applied pressure which prevents the plaster from crystallizing in the mold. This result could not be obtained in Revord and Brouard, in which the quantity of water in the mixture is too low.

For the foregoing reasons, the invention recited in amended claim 18 is patentable over Revord, Brouard and Klus taken in view of one another.

This invention is also patentable over Randel et al. taken separately or in view of Revord, Brouard and Klus, because Randel et al.:

- (1) does not concern a mixture of plaster, water and filler, but only a mixture of a special plaster and water;
- (2) does not disclose the length of the time period during which a pressure is applied to a mixture of plaster and water in a mold;
- (3) does not disclose that a combination of pressure and water content is able to prevent the plaster crystallization in the mixture compressed in the mold;
- (4) does not disclose that the plaster crystallization is prevented in the mold; and
- (5) does not disclose that the plaster in the mixture crystallizes outside the mold.

On the other hand, the invention of claim 18 is applicable to all the kinds of plaster, concerns a mixture of plaster, water and filler, which comprises 50-70 % by weight of filler for 50-30% by weight of plaster and which is submitted to a pressure of about 150 bars (at ambient temperature) during 30-45 seconds.

In fact, Randel et al. disclose a method for calcinating gypsum and for rehydrating the calcined gypsum in order to obtain casts of high tensile and compressive strengths and low water absorption, and the present invention is a method for manufacturing building elements from a

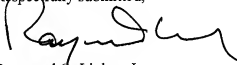
mixture of plaster, water and filler by compressing the mixture in a mold in such conditions that the plaster crystallization under pressure is prevented in the mold, both methods having different objects and different features. It is therefore clear that the invention of amended claim 18 is patentable over Randel et al.

It results also clearly from the above that this invention is patentable over any combination of Klus, Revord, Brouard and Randel et al. because these prior documents taken separately or in view of one another neither disclose nor suggest the combination of features recited in amended claim 18, but instead they teach features other than those of amended claim 18. Amended claim 18 is therefore allowable.

Claims 6 and 8 to 15 depend directly or indirectly on claim 18 and are allowable therewith.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON JANUARY 29, 2008.

LEGAL02/30681649v1